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ABSTRACT

The results of the achievement and enrollment study are reported for six elementary foreign language magnet programs that were implemented as part of the desegregation plan in Kansas City, Missouri. In addition to the foundation curriculum, two goals are emphasized: teaching foreign language and exposing students to foreign cultures. Three strands are additional dimensions of the program: total immersion, in which all core subjects are taught in the target language; partial immersion, in which content areas are taught in the target language; and pull-out language programs, in which all courses are taught in English and students are pulled out for target language instruction. Percentile ranks based on mean grade equivalents for the reading, language, and math subtests of the Iowa Tests of Basic Skills are reported for minority and non-minority students at each grade level. It is concluded that: (1) reading and language achievement showed mixed results between foreign language and non-foreign language students; (2) foreign language students out-ranked non-foreign language students in math achievement; (3) enrollment capacity ranged from 78 percent to 99 percent across the six schools; (4) half the grade levels at the six schools reached the minority/non-minority goals for the 1990-1991 school year; and (5) extended day minority/non-minority enrollment closely approximated regular program enrollment. Extensive statistical data are presented in 18 tables and figures. (LB)

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Achievment and Enrollment Evaluation of the Original Elementary Foreign Language Elementary Schools

1990-1991

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ACHIEVEMENT AND ENROLLMENT OF THE ORIGINAL ELEMENTARY FOREIGN LANGUAGE MAGNET SCHOOLS

Introduction

As a part of the desegregation plan in the Kansas City, Missouri, School District, the foreign language magnet program is being implemented in eight elementary schools. Six of the eight elementary foreign language magnets began operation in the 1987-1988 school year. These original foreign language elementary schools are Fairmount, Franklin, Longan, Moore, Mount Washington, and Sugar Creek.

The *Long-Range Magnet School Plan* (Hale and Levine, 1986) specifies that evaluations of magnet schools will occur in three-year cycles. For the first two years a magnet program is in operation, a formative evaluation will be conducted. During the third year of implementation, a summative evaluation report will be prepared. The subsequent three-year cycles will include two years of achievement and enrollment summaries and conclude with a summative study. This report presents the results of the achievement and enrollment study for the original elementary foreign language magnets. Achievement and enrollment data will be reported for the 1990-1991 school year.

Program Description

In accordance with the *Long-Range Magnet School Plan* (Hale and Levine, 1986), site task forces at each of the six elementary schools developed a planning outline to provide guidance for the implementation of the foreign language theme. The planning took place during the 1986-1987 school year, the year prior to implementation. In addition to the basic foundation curriculum, each of these planning outlines emphasizes two areas in their goals: the teaching of foreign language to students and the exposure of students to foreign cultures.

French, German, and Spanish are available to students in the elementary foreign language program in the Kansas City schools. The six schools in this study concentrate on one or more of these languages. Three strands are additional dimensions of the program: total immersion, in which all core subjects are taught in the target language; partial immersion, in which math, science, and social studies are taught in the target language; and pull-out language programs, in which all courses are taught in English and students are "pulled out" for target language instruction.

Results

Achievement

For this achievement and enrollment evaluation, percentile ranks based on mean grade equivalents for the reading, language, and math subtests of the Iowa Tests of Basic Skills (ITBS) are reported for minority and non-minority students at each grade level for each year of program implementation through the spring of 1991. These data are found in Tables 1-3. No reading or language tests were given to total immersion students in kindergarten through the second grade. Percentile ranks are reported by school in Table A-1 (see Appendix A).

Reading percentile ranks (Table 1) showed mixed results, with foreign language students ranking higher than their non-foreign-language counterparts in three instances and ranking lower in eight instances. Total, partial, and pull-out students outranked their non-foreign-language counterparts at one grade level each.

Language percentile ranks (Table 2) also showed mixed results, with foreign language students ranking higher than the non-foreign-language students in four instances and lower in eight instances. Partial and total students outranked the non-foreign-language students at two grade levels each.

With the exception of pull-out students at the kindergarten and fourth-grade levels, the foreign language students outranked their non-foreign-language counterparts in math from kindergarten through fourth grade (Table 3). Fifth-grade foreign language students received lower math scores than fifth-grade non-foreign-language students.

To trace the progress of students in the program at least three years, the ITBS percentile ranks of 1988 and 1989 kindergarten cohorts of minority and non-minority students are presented in Figures 1-3. For reading (Figure 1), the gap between minority and non-minority students in the 1988 cohort stayed relatively steady over the four years tracked, and the gap for the 1989 cohort became virtually nonexistent in the first grade and widened in the second grade. For language (Figure 2), the gap narrowed slightly for both cohorts. For math (Figure 3), the gap narrowed by 13 percentile points for the 1988 cohort and widened slightly (by six percentile points) for the 1989 cohort.

In order to see if significant differences (at the .05 level) exist among the 1991 ITBS grade equivalent scores of the students in the three strands of the foreign language magnets and those of non-foreign-language students, a random selection was made at each grade level to produce groups of equal size. For kindergarten through grade two, a one-way analysis of variance was

Table 1

Iowa Tests of Basic Skills Reading Mean Grade Equivalents
Converted to Percentile Ranks for Students from
Original Foreign Language Elementary Magnets and Non-Foreign-Language Schools
Spring 1988, 1989, 1990, 1991

Grade / Language Immersion	1988			1989			1990			1991		
	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Min.	Non-Min.	Total
Kindergarten												
Total	56	74	61	55	74	63	64	87	76	---	---	---
Partial	68	73	70	63	66	64	75	77	76	---	---	---
Pull-Out	---	---	---	---	---	---	77	58	73	---	---	---
Students from Non-Foreign-Language Schools	77	82	79	81	84	82	80	85	82	---	---	---
First												
Total	23	19	22	21	27	22	24	53	35	---	---	---
Partial	39	46	41	43	57	48	50	52	50	50	54	52
Pull-Out	---	---	---	---	---	---	69	76	70	---	---	---
Students from Non-Foreign-Language Schools	44	52	47	50	63	53	54	64	57	51	60	54
Second												
Total	---	---	---	20	3	16	45	63	50	---	---	---
Partial	38	55	43	36	56	43	42	62	49	43	55	47
Pull-Out	---	---	---	---	---	---	---	---	---	20	*	20
Students from Non-Foreign-Language Schools	41	57	45	42	61	47	47	66	53	46	62	51
Third												
Total	---	---	---	---	---	---	26	12	22	53	62	55
Partial	---	---	---	38	44	40	35	52	41	38	46	41
Pull-Out	---	---	---	28	26	28	52	73	53	51	*	49
Students from Non-Foreign-Language Schools	32	47	36	33	52	38	38	54	43	38	58	44
Fourth												
Total	---	---	---	---	---	---	---	---	---	28	*	30
Partial	---	---	---	---	---	---	33	40	35	46	74	51
Pull-Out	---	---	---	40	68	44	25	41	26	31	39	32
Students from Non-Foreign-Language Schools	34	49	37	33	54	38	33	53	38	34	52	39
Fifth												
Partial	---	---	---	---	---	---	---	---	---	31	51	35
Pull-Out	---	---	---	42	54	44	37	51	39	26	53	29
Students from Non-Foreign-Language Schools	34	53	39	37	53	41	37	53	41	35	54	40

* When the number of students is less than four, percentile ranks are not reported.

Table 2

Iowa Tests of Basic Skills Language Mean Grade Equivalents
Converted to Percentile Ranks for Students from
Original Foreign Language Elementary Magnets and Non-Foreign-Language Schools
Spring 1988, 1989, 1990, 1991

Grade / Language Immersion	1988			1989			1990			1991		
	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Min.	Non-Min.	Total
Kindergarten												
Total	44	58	48	38	68	52	44	72	58	---	---	---
Partial	48	58	52	42	53	46	52	65	57	55	70	61
Pull-Out	---	---	---	---	---	---	51	41	49	41	*	40
Students from Non-Foreign-Language Schools	50	69	57	55	70	60	53	71	59	56	72	61
First												
Total	19	26	20	31	43	34	29	65	45	---	---	---
Partial	56	60	57	61	68	63	65	61	64	73	76	74
Pull-Out	---	---	---	---	---	---	77	95	79	---	---	---
Students from Non-Foreign-Language Schools	63	70	65	71	78	73	74	79	76	72	77	73
Second												
Total	---	---	---	16	3	14	40	59	45	---	---	---
Partial	45	58	49	44	55	48	55	68	60	55	62	57
Pull-Out	---	---	---	---	---	---	---	---	---	33	*	32
Students from Non-Foreign-Language Schools	57	66	59	60	67	62	64	72	66	63	69	65
Third												
Total	---	---	---	---	---	---	34	24	32	56	63	58
Partial	---	---	---	46	51	48	51	64	56	50	58	53
Pull-Out	---	---	---	35	35	35	60	94	61	33	*	31
Students from Non-Foreign-Language Schools	48	59	51	49	62	53	53	63	56	54	66	57
Fourth												
Total	---	---	---	---	---	---	---	---	---	22	*	27
Partial	---	---	---	---	---	---	43	56	46	48	71	52
Pull-Out	---	---	---	47	65	49	32	62	35	30	39	31
Students from Non-Foreign-Language Schools	48	55	49	45	57	48	48	59	50	46	58	50
Fifth												
Partial	---	---	---	---	---	---	---	---	---	48	58	50
Pull-Out	---	---	---	50	55	51	47	65	49	34	46	35
Students from Non-Foreign-Language Schools	46	58	48	49	59	52	48	58	51	46	56	48

* When the number of students is less than four, percentile ranks are not reported.

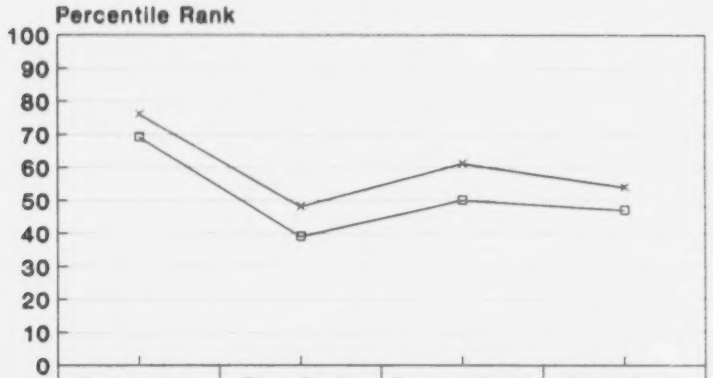
Table 3

Iowa Tests of Basic Skills Math Mean Grade Equivalents
Converted to Percentile Ranks for Students from
Original Foreign Language Elementary Magnets and Non-Foreign-Language Schools
Spring 1988, 1989, 1990, 1991

Grade Language Immersion	1988			1989			1990			1991		
	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Min.	Non-Min.	Total	Min.	Non-Min.	Total
Kindergarten												
Total	44	65	50	55	67	60	71	91	80	50	86	66
Partial	55	72	62	57	59	57	65	75	68	71	81	75
Pull-Out	---	---	---	---	---	---	52	48	51	47	*	44
Students from Non-Foreign-Language Schools	55	71	60	65	76	68	63	80	68	60	73	47
First												
Total	34	46	35	52	81	61	78	95	88	67	95	79
Partial	38	57	44	51	64	56	59	72	63	74	81	77
Pull-Out	---	---	---	---	---	---	50	70	51	---	---	---
Students from Non-Foreign-Language Schools	43	65	50	52	71	58	59	74	63	59	73	63
Second												
Total	---	---	---	50	35	47	82	94	86	77	97	90
Partial	40	58	46	51	68	57	58	78	65	69	76	71
Pull-Out	---	---	---	---	---	---	---	--	---	83	*	83
Students from Non-Foreign-Language Schools	49	66	54	52	72	58	57	73	61	59	72	62
Third												
Total	---	---	---	---	---	---	47	46	47	76	83	78
Partial	---	---	---	39	51	43	45	66	52	50	63	54
Pull-Out	---	---	---	24	5	23	49	71	50	57	*	55
Students from Non-Foreign-Language Schools	36	54	41	37	59	43	42	60	47	41	61	47
Fourth												
Total	---	---	---	---	---	---	---	---	---	63	*	70
Partial	---	---	---	---	---	---	48	73	53	54	83	59
Pull-Out	---	---	---	48	66	50	35	60	37	26	39	27
Students from Non-Foreign-Language Schools	41	54	44	39	56	43	41	59	46	40	57	44
Fifth												
Partial	---	---	---	---	---	---	---	---	---	34	62	39
Pull-Out	---	---	---	40	44	40	39	63	42	29	43	30
Students from Non-Foreign-Language Schools	36	53	40	42	54	45	40	57	44	38	53	42

* When the number of students is less than four, percentile ranks are not reported.

Figure 1A
ITBS Reading Achievement Across Time
1988 Kindergarten Cohort

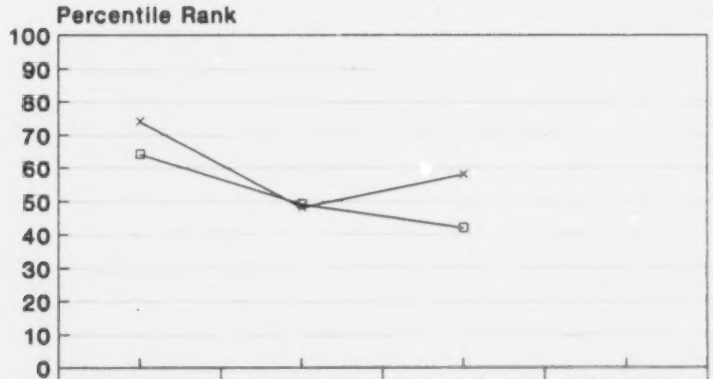


	Kindergarten	First Grade	Second Grade	Third Grade
Minority 88	69	39	50	47
Non-Min. 88	76	48	61	54

Note: Percentile ranks were converted from mean grade equivalent scores

Original Foreign Language Magnets, 1991

Figure 1B
ITBS Reading Achievement Across Time
1989 Kindergarten Cohort

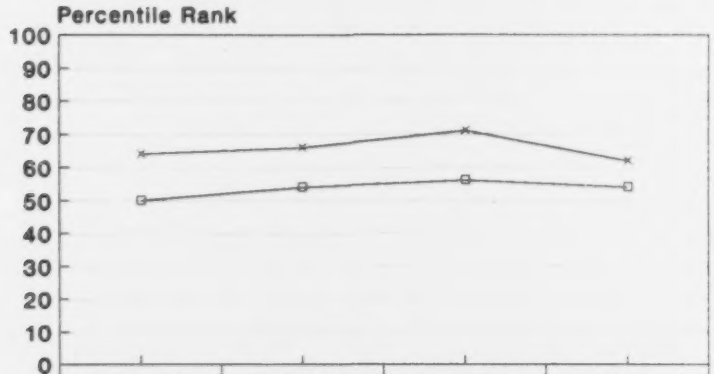


	Kindergarten	First Grade	Second Grade	Third Grade
Minority 89	64	49	42	
Non-Min. 89	74	48	58	

Note: Percentile ranks were converted from mean grade equivalent scores

Original Foreign Language Magnets, 1991

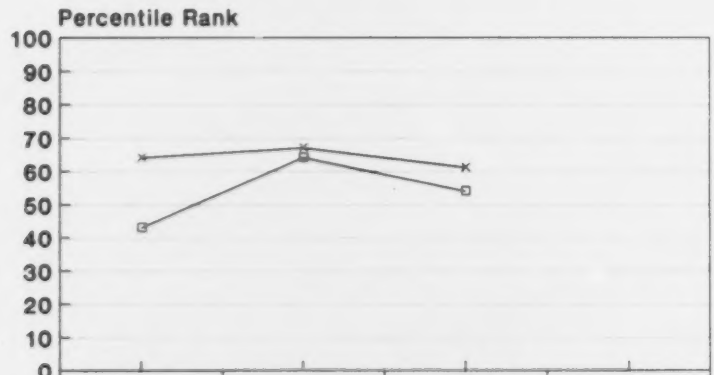
Figure 2A
ITBS Language Achievement Across Time
1988 Kindergarten Cohort



	Kindergarten	First Grade	Second Grade	Third Grade
Minority 88	50	54	56	54
Non-Min. 88	64	66	71	62

Note: Percentile ranks were converted from mean grade equivalent scores
Original Foreign Language Magnets, 1991

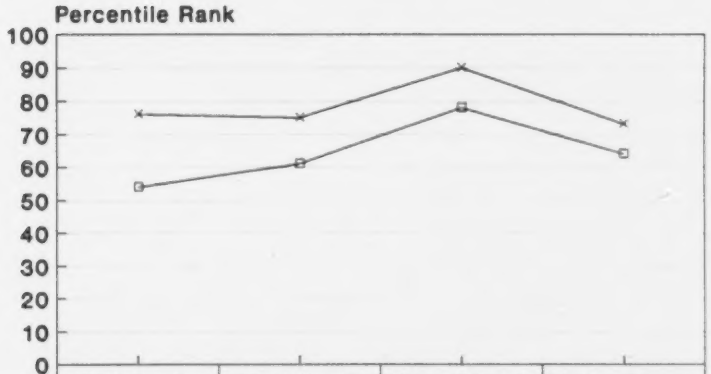
Figure 2B
ITBS Language Achievement Across Time
1989 Kindergarten Cohort



	Kindergarten	First Grade	Second Grade	Third Grade
Minority 89	43	64	54	
Non-Min. 89	64	67	61	

Note: Percentile ranks were converted from mean grade equivalent scores
Original Foreign Language Magnets, 1991

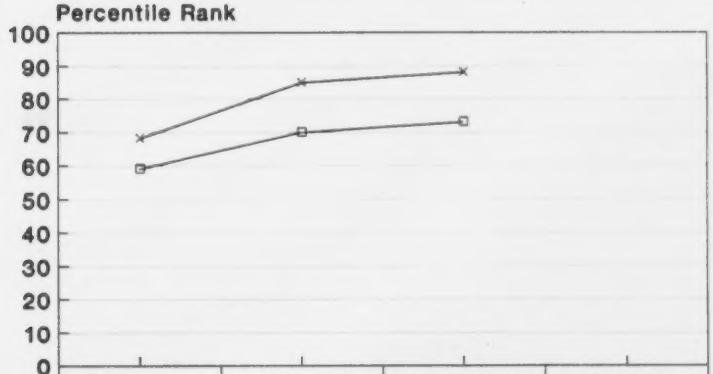
Figure 3A
ITBS Math Achievement Across Time
1988 Kindergarten Cohort



	Kindergarten	First Grade	Second Grade	Third Grade
Minority 88	54	61	78	64
Non-Min. 88	76	75	90	73

Note: Percentile ranks were converted from mean grade equivalent scores
Original Foreign Language Magnets, 1991

Figure 3B
ITBS Math Achievement Across Time
1989 Kindergarten Cohort



	Kindergarten	First Grade	Second Grade	Third Grade
Minority 89	59	70	73	
Non-Min. 89	68	85	88	

Note: Percentile ranks were converted from mean grade equivalent scores
Original Foreign Language Magnets, 1991

conducted using grade equivalents. Summary data for the kindergarten through second-grade analyses are found in Table 4.

To compensate for varying abilities of students in the four groups, analyses of covariance were run for third-grade through fifth-grade test scores. This year's scores were covaried with non-verbal third-grade Cognitive Abilities Tests (CAT) scores. Summary data for the third- through fifth-grade analyses are found in Table 5. The adjusted means in Table 5 represent a scientific estimate of student performance on the 1991 ITBS tests, assuming that the students had identical non-verbal CAT scores. The adjusted mean is computed during the analysis of covariance procedure.

Table 4

Original Foreign Language Elementary Magnets
Summary Data for the 1991 ITBS Reading, Language, and Math Tests
for Analysis of Variance
with Randomly Selected Foreign Language & Non-Foreign-Language Students
Grades K - 2

Test / Grade	Program: Total Immersion (TI)	Program: Partial Immersion (PI)	Program: Pull-Out (PO)	Program: Non-For. Lang. (NF)	Probability	Groups
Reading						
Kind.	---	---	---	---	---	
First	---	1.9	---	2.0	.52	
Second	---	2.7	1.9	2.8	.00*	NF,PI > PO[1]
Language						
Kind.	---	1.0	.6	.9	.37	
First	---	2.5	---	2.5	.88	
Second	---	3.0	2.4	3.0	.11	
Math						
Kind.	1.1	1.4	.7	.7	.01*	PI > NF,PO
First	2.4	2.3	---	2.1	.06	
Second	3.6	3.1	3.6	3.2	.05*	PO > PI

Note: Analysis was done using grade equivalents. Mean grade equivalents were rounded to the nearest tenth. Probabilities were rounded to the nearest hundredth.

* Indicates significance at at least the .05 level.

1 The studentized range statistic (Newman-Keuls procedure) was used for post hoc tests to determine where the differences were among program groups. The group or groups presented to the left of the "> " (greater than) sign scored significantly higher than the group or groups presented to the right of the sign. For example, if students in the partial immersion and traditional groups have scores that are significantly higher than those of the total immersion group, the entry would read PI,TR> TI.

Table 5

Original Foreign Language Elementary Magnets
Summary Data for the 1991 ITBS Reading, Language, and Math Tests
for Analysis of Covariance
with Randomly Selected Foreign Language & Non-Foreign-Language Students
Grades 3 - 5

Test / Grade / Means	Program: Total Immersion (TI)	Partial Immersion (PI)	Pull-Out (PO)	Non-For. Lang. (NF)	Probability	Groups
Reading						
Third						
Unadjusted	4.01	4.06	3.78	3.35		
Adjusted	3.92	3.98	3.87	3.43	.24	
Fourth						
Unadjusted	4.00	5.42	4.09	4.01		
Adjusted	3.87	5.32	4.03	4.30	.01*	PI > TI[1]
Fifth						
Unadjusted	-----	5.09	4.83	5.32		
Adjusted	-----	5.04	5.04	5.17	.73	
Language						
Third						
Unadjusted	4.50	4.73	3.32	3.80		
Adjusted	4.41	4.65	3.41	3.89	.00*	PI,TI > PO
Fourth						
Unadjusted	4.00	5.17	3.91	4.81		
Adjusted	3.81	5.03	3.82	5.21	.00*	NF,PI > PO,TI
Fifth						
Unadjusted	-----	5.81	5.28	5.89		
Adjusted	-----	5.77	5.45	5.76	.12	
Math						
Third						
Unadjusted	4.54	4.19	3.90	3.57		
Adjusted	4.42	4.09	4.01	3.68	.08	
Fourth						
Unadjusted	5.37	5.26	4.16	4.61		
Adjusted	5.23	5.16	4.10	4.92	.00*	TI,PI,NF > PO
Fifth						
Unadjusted	-----	5.41	5.17	5.62		
Adjusted	-----	5.38	5.34	5.48	.66	

Note: Analysis was done using grade equivalents. Non-verbal cognitive abilities scores were used for the pre-test scores. Mean grade equivalents were rounded to the nearest tenth. Probabilities were rounded to the nearest hundredth.

* Indicates significance at at least the .05 level.

1 The studentized range statistic (Newman-Keuls procedure) was used for post hoc tests to determine where the differences were among groups. The group or groups presented to the left of the "> " (greater than) sign scored significantly higher than the group or groups presented to the right of the sign. For example, if students in the traditional group have scores that are significantly higher than those of the pull-out group, the entry would read TR> PO.

Significant differences were found in seven of the 18 analyses. In the cases in which significant differences were found, results were sufficiently mixed that patterns are difficult to tease out. With the exception of the second-grade math scores, when differences at the .05 level were found, partial immersion student scores were higher than the scores of one or more other groups. In five of the seven instances in which significant difference were found, pull-out student scores were lower than the scores of one or more other groups. The non-foreign-language students had significantly higher scores than another group (other groups) in three instances and significantly lower scores in one instance. The scores of total immersion students were significantly higher than scores of another group (other groups) in two instances and significantly lower in two instances.

Table 6 displays the Missouri Mastery and Achievement Tests average scale scores in the areas of reading/language arts and math. As can be seen, three of the schools had reading average scale scores above that of the district. None of the schools' reading scores exceeded those of the state. Four of the schools had math average scale scores above that of the district as a whole. The math average scale scores of two of the schools were above that of the state.

The *Missouri Mastery and Achievement Tests, Guide to Score Interpretation and Use* (Missouri Department of Elementary and Secondary Education, 1990) indicates that a difference of 25 or more scaled score points represents a meaningful difference when comparing groups of students. In the case of the reading scores for the original foreign language magnet schools,

Table 6
Original Foreign Language
Elementary Magnets
Missouri Mastery & Achievement Tests
Average Scale Scores
Third Grade - 1991

School	Reading/ English	Math
Fairmount	276	297
Franklin	246	281
Longan	309	380
Moore	256	272
Mt. Washington	266	298
Sugar Creek	289	336
District	274	289
State	321	326

there was a meaningful difference between the Franklin's score and that of the district (with Franklin's score being lower) and between Longan's score and that of the district (with Longan's score being higher). All of the schools except Longan had reading scores that were meaningfully lower than that of the state. Longan's and Sugar Creek's math scores were meaningfully higher than that of the district and Longan's score was meaningfully higher than that of the state. Four of the schools had math scores that were meaningfully lower than the average scale score for the state.

Enrollment

Regular School Enrollment. Table 7 shows the September 1990 program capacity for the original foreign language elementary schools and compares it to the actual enrollment. As can be seen from the table, although some of the grade levels at five of the schools exceeded projected capacity, none of the schools reached 100% of total school capacity. Mount Washington came the closest to total capacity, with 99% of its capacity realized. Franklin was the school furthest from reaching capacity, with 78% of capacity in the French program and 81% of capacity in the Spanish program.

The court-ordered, minority/non-minority enrollment goal for each grade level is a crucial aspect of the magnet program. Each year, the schools are expected to move at least 2% closer to a 60% minority/40% non-minority balance in grade levels which have a higher-than-60% minority student population. A grade level with a minority enrollment lower than 50% is expected to move at least to a 50% minority enrollment, with a goal of moving to a 60% minority enrollment.

Table 8 delineates enrollment figures at each grade level for the six original foreign language magnet schools for the year prior to becoming magnet schools as well as for the four years of magnet operation. The enrollment figures used in this report were drawn from the official student membership reports prepared by the district's research office, based on enrollment figures reported on the fourth Wednesday in September. The asterisks in Table 8 identify grade levels which reached the goal for the 1990-1991 school year. Out of a total of 36 grade levels at the six schools, 19 (49%) reached the minority/non-minority goal for the 1990-1991 year.

Table 9 displays the 1990-1991 enrollment in the schools by language. As can be seen, the largest overall enrollment is in Spanish.

Table 7

Original Foreign Language
Elementary Magnets
Capacity & Actual Enrollment
September 1990

School Grade	Program Capacity[1]	Actual[2]	Difference	% of Capacity
Fairmount				
Kind	66	59	-7	89%
First	44	46	+ 2	105%
Second	51	42	-9	82%
Third	47	48	+ 1	102%
Total	208	195	-13	94%
Franklin (French)				
Kind.	44	7	-37	16%
First	44	35	-9	80%
Second	16	24	+ 8	150%
Third	35	37	+ 2	106%
Fourth	53	37	-16	70%
Fifth	36	37	+ 1	103%
Total	228	177	-51	78%
Franklin (Spanish)				
Kind.	44	15	-29	34%
First	44	39	-5	89%
Second	60	49	-11	82%
Third	38	37	-1	97%
Fourth	37	50	+ 13	135%
Fifth	70	47	-23	67%
Total	293	237	-56	81%
Longan				
Kind.	66	65	-1	98%
First	44	42	-2	95%
Second	63	56	-7	89%
Third	40	46	+ 6	115%
Fourth	40	33	-7	83%
Fifth	29	25	-4	86%
Total	282	267	-15	95%
Moore				
Kind.	88	45	-43	51%
First	44	41	-3	93%
Second	37	37	0	100%
Third	39	42	+ 3	108%
Fourth	44	45	+ 1	102%
Fifth	55	55	0	100%
Total	307	265	-42	86%

Table 7 (Continued)

Original Foreign Language
Elementary Magnets
Capacity & Actual Enrollment
September 1990

School Grade	Program Capacity[1]	Actual[2]	Difference	% of Capacity
Mt. Washington				
Kind	110	113	+ 3	103%
First	88	84	-4	95%
Second	56	58	+ 2	104%
Third	80	76	-4	95%
Total	334	331	-3	99%
Sugar Creek				
Kind.	66	64	-2	97%
First	44	41	-3	93%
Second	36	33	-3	92%
Third	30	24	-6	80%
Total	176	162	-14	92%

Note: Percentages are rounded to the nearest whole percent.

1 Program capacity utilized by the Admissions Office when placing students in magnet programs.

2 From *September 26, 1990 Student Membership* (Research Office, 1990).

Table 10 gives an overview of the 1990-1991 classroom organization for the original foreign language elementary schools. Total immersion classes are found mostly at kindergarten through third grade, although Franklin had one fourth-grade total immersion Spanish class. Partial immersion classes were found at all grade levels. Pull-out classes were mostly at fourth- and fifth-grade levels at Franklin. However, a kindergarten pull-out class was part of the organization at both Longan and Moore; and Franklin had single pull-out classes at both the second- and third-grade levels.

Extended Day Enrollment. Table 11 shows the 1990-1991 extended day enrollment figures and compares them to the extended day enrollment for the previous year. As can be seen by comparing the figures in Tables 8 and 11, the schools had a similar minority population in both the extended day and the regular programs (within six percentage points).

Table 8

Student Enrollment for the Original Foreign Language Elementary Magnets by Grade

School / Grade	Sept. 1986 Enroll.	Sept. 1986 % Minority	Year 1 - Sept. 1987 Enroll.	Year 1 - Sept. 1987 % Minority	Year 2 - Sept. 1988 Enroll.	Year 2 - Sept. 1988 % Minority	Year 3 - Sept. 1989 Enroll.	Year 3 - Sept. 1989 % Minority	Year 4 - Sept. 1990 Enroll.	Year 4 - Sept. 1990 % Minority
Fairmount										
Kind.	57	4%	60	55%	43	56%	35	69%	59	61%
First	63	21%	52	31%	64	59%	58	57%	46	54%*
Second	45	20%	48	38%	51	41%	55	65%	42	52%*
Third	39	28%	40	40%	35	49%	41	46%	48	58%*
Total	204	17%	200	42%	193	52%	189	59%	195	57%
Franklin (French)[1]										
Kind.	92	100%	----	-------	----	-------	11	55%	7	71%
First	107	98%	----	-------	----	-------	28	89%	35	91%
Second	91	97%	----	-------	----	-------	33	88%	24	92%
Third	83	95%	----	-------	----	-------	14	100%	37	92%*
Fourth	70	97%	----	-------	----	-------	27	93%	37	97%
Fifth	63	98%	----	-------	----	-------	25	88%	37	92%
Total	506	98%	---	-------	----	-------	138	88%	177	92%
Franklin (Spanish)[1]										
Kind.			----	-------	----	-------	18	72%	15	53%*
First			----	-------	----	-------	50	90%	39	85%*
Second			----	-------	----	-------	40	85%	49	94%
Third	(See Above)		----	-------	----	-------	67	93%	37	84%*
Fourth			----	-------	----	-------	58	93%	50	86%*
Fifth			----	-------	----	-------	59	93%	47	89%*
Total			---	-------	----	-------	292	90%	237	86%
Longan										
Kind.	42	76%	28	68%	56	56%	43	63%	65	65%
First	56	66%	36	83%	47	72%	65	65%	42	67%
Second	50	66%	37	70%	44	75%	46	72%	56	66%*
Third	41	80%	35	63%	37	78%	41	76%	46	74%
Fourth	25	60%	31	87%	32	66$	33	82%	33	70%*
Fifth	24	75%	23	70%	27	81%	31	68%	25	76%
Total	238	71%	190	74%	243	72%	259	70%	267	69%

Table 8 (Continued)

Student Enrollment for the Original Foreign Language Elementary Magnets by Grade

School Grade	Sept. 1986 Enroll.	Sept. 1986 % Minority	Year 1 - Sept. 1987 Enroll.	Year 1 - Sept. 1987 % Minority	Year 2 - Sept. 1988 Enroll.	Year 2 - Sept. 1988 % Minority	Year 3 - Sept. 1989 Enroll.	Year 3 - Sept. 1989 % Minority	Year 4 - Sept. 1990 Enroll.	Year 4 - Sept. 1990 % Minority
Moore										
Kind.	60	87%	32	78%	40	75%	44	61%	45	69%
First	130	76%	70	81%	39	85%	39	85%	41	63%*
Second	116	78%	71	77%	60	82%	46	80%	37	81%
Third	115	81%	83	86%	57	81%	55	87%	42	88%
Fourth	----	------	57	93%	63	87%	64	86%	45	89%
Fifth	----	------	34	79%	47	96%	52	88%	55	80%*
Total	421	79%	347	83%	306	84%	300	82%	265	78%
Mt. Washington										
Kind.	82	2%	63	48%	62	47%	79	62%	113	58%*
First	119	24%	105	49%	88	50%	64	55%	85	57%*
Second	98	29%	94	45%	98	53%	95	51%	58	53%*
Third	100	39%	89	43%	78	54%	85	58%	76	54%*
Total	397	24%	351	46%	327	51%	323	56%	331	56%
Sugar Creek										
Kind.	----	------	34	53%	34	44%	40	63%	64	64%
First	58	38%	34	32%	45	56%	40	50%	41	54%*
Second	31	39%	40	53%	47	45%	30	53%	33	49%
Third	42	38%	26	58%	31	61%	43	44%	24	54%*
Total	163	31%	483	49%	157	51%	153	52%	162	57%

Note: Percentages are rounded to the nearest whole percent. 1986 enrollment figures are computed by subtracting students in self-contained special educational programs (number obtained from the Research Office) from total enrollment figures reported in *A By-School Comparison of Student Enrollment by Race & Grade for the Years 1986-1987 & 1987-1988* (Research Office, 1987); 1988 enrollment figures are from *September 28, 1988, Student Membership* (Research Office, 1988); 1989 enrollment figures are from *September 27, 1989, Student Membership* (Research Office, 1989); 1990 enrollment figures are from *September 26, 1990, Student Membership* (Research Office, 1990); 1991 enrollment figures are from *September 25, 1990, Student Membership* (Research Office, 1991).

1 Franklin's 1986 enrollment was for the total school since the language program had not yet been implemented. In 1987 and 1988, the research office did not compile enrollment data by language.

* The enrollment goal was reached at these grade levels.

Table 9

Original Foreign Language Elementary Magnets 1990 Enrollment by Foreign Language

Language School	Enroll.	% Minority
French		
Franklin	170	93%
Longan	202	70%
Sugar Creek	98	52%
Total French	470	74%
German		
Mt. Washington	218	55%
Spanish		
Fairmount	136	55%
Franklin	222	88%
Moore	220	81%
Total Spanish	578	77%

Note: Percentages are rounded to the nearest whole percent.

Summary

During the fourth implementation year for the original foreign language elementary magnets, reading and language achievement showed mixed results, with foreign language students having higher scores in some instances and non-foreign-language students having higher scores in some instances. In math achievement, foreign language students out-ranked non-foreign-language students in almost every instance. However, when analysis of variance or covariance tests were run, only one of the math differences showed foreign-language students as having significantly higher math scores than their non-foreign-language counterparts.

Looking at the 1990-1991 enrollment capacity, Mount Washington was very close to total capacity with enrollment reaching 99% of capacity. Other elementary foreign language programs reached between 78% and 95% of capacity.

Half the grade levels at the six schools reached the minority/non-minority goal for the 1990-1991 school year. Extended day enrollment minority/non-minority balances closely approximated the enrollment balances of the regular program in each of the six schools.

Table 10

Original Foreign Language Elementary Magnets
Classroom Organization
1990 - 1991

School Language Grade	Total Immersion Classes	Partial Immersion Classes	Pull-Out Classes
Fairmount			
Spanish			
Kindergarten	1	2	---
First	1	1	---
Second	1	2	---
Third	1	2	---
Franklin			
French			
Kindergarten	.5	---	---
First	1.5	---	---
Second	1	---	---
Third	1	1	---
Fourth	---	1	---
Fifth	---	---	---
Spanish			
Kindergarten	---	---	---
First	---	---	---
Second	---	1	---
Third	1	1	---
Fourth	1	---	---
Fifth	---	---	---
Combined French/ Spanish			
Kindergarten	---	---	---
First	---	---	---
Second	---	---	1
Third	---	---	1
Fourth	---	---	2
Fifth	---	---	4
Longan			
French			
Kindergarten	1	2	1
First	1	1	---
Second	1	2	---
Third	1	1.5	---
Fourth	---	1.5	---
Fifth	---	1	---
Moore			
Spanish			
Kindergarten	---	2	1
First	---	2	---
Second	---	2	---
Third	---	2	---
Fourth	---	3	---
Fifth	---	3	---

Table 10 (Continued)

Original Foreign Language Elementary Magnets
Classroom Organization
1990 - 1991

School Language Grade	Total Immersion Classes	Partial Immersion Classes	Pull-Out Classes
Mt. Washington			
German			
Kindergarten	1	4	---
First	---	4	---
Second	1	2	---
Third	---	5	---
Sugar Creek			
French			
Kindergarten	2	1	---
First	1	1	---
Second	1	1	---
Third	1	1	---

Table 11
Original Foreign Language Elementary Magnets
Extended Day Enrollment Figures

School Ethnicity	Morning Only	Afternoon Only	Both Morning & Afternoon	1990-1991 Total N	%	1989-1990 Total N	%
Fairmount							
Minority	12	18	23	53	62%	48	52%
Non-Minority	5	15	12	32	38%	44	48%
Total	17	33	35	85		92	
Franklin							
Minority	33	23	78	134	88%	128	91%
Non-Minority	5	2	11	18	12%	13	9%
Total	38	25	89	152		141	
Longan							
Minority	13	39	86	138	72%	114	70%
Non-Minority	0	25	30	55	28%	49	30%
Total	13	64	116	193		163	
Moore							
Minority	25	62	55	142	84%	165	85%
Non-Minority	4	3	21	28	16%	29	15%
Total	29	65	76	170		194	
Mt. Washington							
Minority	17	27	35	79	58%	92	59%
Non-Minority	12	24	22	58	42%	64	41%
Total	29	51	57	137		156	
Sugar Creek							
Minority	11	19	18	48	62%	58	67%
Non-Minority	11	11	7	29	38%	28	33%
Total	22	30	25	77		86	

Note: Percentages are rounded to the nearest whole percent. Figures provided by the schools. It should be noted that these figures fluctuate throughout the year.

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APPENDIX A

ITBS PERCENTILE RANKS BY SCHOOL

Table A-1

Original Foreign Language Elementary Magnets
Iowa Tests of Basic Skills Reading, Language, and Math
Mean Grade Equivalents Converted to Percentile Ranks
by Language Immersion, by School
Spring 1988, 1989, 1990, 1991

Grade / Language / School	Reading				Language				Math			
	1988	1989	1990	1991	1988	1989	1990	1991	1988	1989	1990	1991
Kindergarten												
Total												
Fairmount	75	48	78	---	47	53	44	---	48	64	68	64
Franklin	47	42	34	---	40	23	32	---	36	64	86	23
Longan	86	84	92	---	70	69	74	---	82	76	89	99
Mt. Washington	57	76	---	---	38	47	---	---	53	53	---	59
Sugar Creek	51	56	56	---	35	54	56	---	38	40	66	46
Partial												
Fairmount	63	67	70	---	56	57	67	61	51	56	65	67
Franklin	---	51	76	---	---	43	47	70	---	74	62	49
Longan	60	81	93	---	33	35	61	64	41	45	87	79
Moore	65	63	68	---	44	45	57	60	56	61	64	75
Mt. Washington	72	59	72	---	53	48	52	61	75	49	60	80
Sugar Creek	85	52	74	---	53	45	66	51	59	34	90	75
Pull-Out												
Moore	---	---	73	---	---	---	47	40	---	---	49	44
First												
Total												
Fairmount	---	33	21	---	---	49	36	---	---	61	85	88
Franklin	24	23	20	---	24	34	16	---	38	60	60	32
Longan	---	18	64	---	---	41	67	---	---	74	95	96
Mt. Washinton	---	---	39	---	---	---	60	---	---	---	83	---
Sugar Creek	---	14	26	---	---	13	27	---	---	45	94	94

Table A-1 (Continued)

Original Foreign Language Elementary Magnets
Iowa Tests of Basic Skills Reading, Language, and Math
Mean Grade Equivalents Converted to Percentiles
by Language Immersion, by School
Spring 1988, 1989, 1990, 1991

Grade / Language / School	Reading				Language				Math			
	1988	1989	1990	1991	1988	1989	1990	1991	1988	1989	1990	1991
First (Cont.)												
Partial												
Fairmount	30	51	54	58	35	59	43	86	31	60	59	69
Franklin	41	32	68	78	65	52	79	91	44	37	81	92
Longan	73	65	56	46	75	76	73	79	56	63	69	61
Moore	26	42	65	44	53	65	66	75	49	62	57	81
Mt. Washington	44	57	29	44	60	70	45	49	41	57	39	70
Sugar Creek	45	18	57	41	42	21	54	66	54	56	71	77
Pull-Out												
Franklin	---	---	70	---	---	---	78	---	---	---	51	---
Second												
Total												
Fairmount	---	---	45	---	---	---	56	---	---	---	76	98
Franklin	---	15	39	---	---	15	35	---	---	47	77	43
Longan	---	---	78	---	---	---	52	---	---	---	95	95
Mt. Washington	---	---	---	---	---	---	---	---	---	---	---	93
Sugar Creek	---	---	31	---	---	---	44	---	---	---	91	89
Partial												
Fairmount	47	44	50	45	61	50	67	75	39	64	82	89
Franklin	26	28	22	33	28	30	30	38	22	43	28	71
Longan	59	57	54	42	54	58	60	56	67	74	61	69
Moore	42	36	53	54	51	50	68	71	45	55	69	79
Mt. Washington	48	52	58	58	52	56	63	42	54	59	71	61
Sugar Creek	46	46	41	51	54	41	61	72	50	51	76	52
Pull-Out												
Franklin	---	---	---	20	---	---	---	32	---	---	---	83

Table A-1 (Continued)

Original Foreign Language Elementary Magnets
Iowa Tests of Basic Skills Reading, Language, and Math
Mean Grade Equivalents Converted to Percentile Ranks
by Language Immersion, by School
Spring 1988, 1989, 1990, 1991

Grade / Language / School	Reading				Language				Math			
	1988	1989	1990	1991	1988	1989	1990	1991	1988	1989	1990	1991
Third												
Total												
Fairmount	---	---	---	56	---	---	---	62	---	---	---	53
Franklin	---	---	22	47	---	---	32	39	---	---	47	78
Longan	---	---	---	68	---	---	---	74	---	---	---	84
Sugar Creek	---	---	---	42	---	---	---	55	---	---	---	81
Partial												
Fairmount	50	38	34	43	59	37	46	61	62	36	38	52
Franklin	---	70	22	41	---	68	27	42	---	53	30	49
Longan	50	38	49	62	70	58	69	57	50	45	66	86
Moore	29	34	35	36	49	40	45	51	39	33	30	45
Mt. Washington	36	35	46	37	59	44	61	52	46	44	66	51
Sugar Creek	39	39	45	40	57	56	64	62	39	53	61	60
Pull-Out												
Franklin	46	28	53	49	62	35	61	31	49	23	50	55
Fourth												
Total												
Franklin	---	---	---	30	---	---	---	27	---	---	---	70
Partial												
Fra nklin	---	---	---	33	---	---	---	48	---	---	---	45
Longan	47	57	45	69	76	63	65	63	69	56	73	80
Moore	37	39	30	44	40	43	36	45	35	42	43	48
Pull-Out												
Franklin	52	41	26	32	58	48	35	31	38	54	37	27

Table A-1 (Continued)

Original Foreign Language Elementary Magnets
Iowa Tests of Basic Skills Reading, Language, and Math
Mean Grade Equivalents Converted to Percentile Ranks
by Language Immersion, by School
Spring 1988, 1989, 1990, 1991

Grade	Reading				Language				Math			
Language / School	1988	1989	1990	1991	1988	1989	1990	1991	1988	1989	1990	1991
Fifth												
Partial												
Longan	---	---	---	48	---	---	---	59	---	---	---	64
Moore	---	---	---	29	---	---	---	46	---	---	---	28
Pull-Out												
Franklin	33	43	37	29	47	50	43	35	42	39	41	30
Longan	39	55	52	---	61	73	64	---	47	62	55	---
Moore	50	38	34	---	47	41	51	---	46	33	38	---